

DOCUMENT RESUME

ED 455 723

HE 034 178

AUTHOR Hensley, Phyllis A.; Bava, D. J.; Brennan, Denise C.
TITLE Responsibility Center Management: A Financial Paradigm and
Alternative to Decentralized Budgeting.
PUB DATE 2001-03-24
NOTE 22p.; Paper presented at the Annual Conference of the
American Educational Finance Association (26th, Cincinnati,
OH, March 22-24, 2001).
PUB TYPE Reports - Evaluative (142) -- Speeches/Meeting Papers (150)
EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Budgeting; *College Administration; *Decentralization;
*Educational Finance; Higher Education; School Based
Management
IDENTIFIERS *Responsibility Center Budgeting

ABSTRACT

This study examined the implementation of Responsibility Center Management (RCM) systems in two institutions of higher education: the Graduate School of Business at Institution A and the Center of Collaborative Education and Professional Studies at Institution B. RCM is a management and budgeting process for universities that decentralizes authority and responsibility to academic and support centers. Twelve interviews were conducted with one provost and one Chief Financial Officer from each institution and one dean and three faculty members from each school. Their interview responses were subjected to content analysis. All the administrators at each institution were strongly in favor of RCM, which they regarded as a method of continuing strong central guidelines while decentralizing operations, increasing understanding and awareness of costs, and enabling deans to manage income and expenditures better at their schools and centers. Faculty members praised the decentralization and rationality of RCM, but five of the six voiced concerns about the dean's accountability and their individual management styles. There was consensus on both campuses that RCM was more flexible and more rational than traditional fiscal management. Two senior faculty and the six administrators thought that RCM increased information flow and expanded the number of participants in the decision making process. Four of six faculty members thought that academic quality might be hurt because of financially motivated decisions. Faculty members were aware of the difficulties in achieving a proper balance in RCM. Overall, respondents did not advocate RSM as a panacea, but they did consider it an effective planning tool. (Contains 19 references.) (SLD)

ED 455 723

PERMISSION TO REPRODUCE AND
DISSEMINATE THIS MATERIAL HAS
BEEN GRANTED BY

p. Hensley

TO THE EDUCATIONAL RESOURCES
INFORMATION CENTER (ERIC)

1

U.S. DEPARTMENT OF EDUCATION
Office of Educational Research and Improvement
EDUCATIONAL RESOURCES INFORMATION
CENTER (ERIC)

- ☒ This document has been reproduced as
received from the person or organization
originating it.
- ☐ Minor changes have been made to
improve reproduction quality.
- Points of view or opinions stated in this
document do not necessarily represent
official OERI position or policy.

RESPONSIBILITY CENTER MANAGEMENT: A FINANCIAL PARADIGM AND ALTERNATIVE TO CENTRALIZED BUDGETING

Phyllis A. Hensley

DJ Bava

Dennis C. Brennan

Benerd School of Education

Fisher Graduate School

Benerd School of Education

University of the Pacific

Monterey Institute

University of the Pacific

Stockton, California

Monterey, California

Stockton, California

Paper Presented at the American Educational Finance Association 26th Annual Conference

Cincinnati, Ohio

March 24, 2001

BEST COPY AVAILABLE

HE034178

This decade's mix of tight funding and rising costs has increased demands for private and public universities to adopt more efficient and effective financial management systems. Until recently, virtually all universities employed centralized budgetary and planning systems run by senior administrators. According to Stocum and Rooney (1997), despite their many advantages, centralized budget processes are not ideally suited to large, decentralized, academic organizations. The professional goals of faculty are frequently at odds with the demands and interests of the institution's constituents, particularly the governing board and students. In addition, Kaplan (1997) found that the high costs of accurate information and the nature of governance within institutions of higher education make it extremely difficult for administrators to influence the behavior and activities of faculty members. A large share of the budgeting problem owes to the fact that universities are complex, both to understand and to manage. This is not surprising considering their functions and interactions with government, industry, and society in general. Universities are complex systems with many independent parts and interactive processes, and outcomes frequently depend on powerful but obscure second-order effects.

According to Massy (1991), some of the complexity in managing universities stems from lack of agreement or clarity among the various stakeholders about purposes,

measures of performance, and productivity. Furthermore, the professional workforce and relatively flat organizational structure limit the exercise of direct management control, leaving institutional leaders to reconcile conflicting objectives as each stakeholder presses his or her own agenda. The related literature described how stakeholders often attend only to their own values and needs, and not taking the time to view their institution in broad perspective. The decision-making process becomes volatile when emotionally charged issues such as tenure, academic freedom, and diversity are perceived to be at stake. Choices ultimately made may not be congruent with the institution's long-run interest. Massy suggested that using budgetary incentives to accomplish institutional goals could be less disruptive of administrative processes and program goals than detailed central control.

Paradoxically, centralized budgeting systems provide academic units with few incentives for change and little ability to respond to new conditions. Albright and Gilleland (1994) discovered that under such systems, faculty either are oblivious to the relationship between their programs and the fiscal operations of the university, or they have a sense of disenfranchisement from fiscal decision-making, or both.

In contrast, several universities have now turned to responsibility center management (RCM) systems, a financial management model that decentralizes fiscal authority and responsibility. According to Whalen (1991), by granting significant financial decision making power to the academic units that generate university revenues, RCM enables these units to become more directly involved in planning the use of resources and in accountability for outcomes.

Under RCM, the income, growth, and development of academic units depend on their willingness and ability to control costs while simultaneously providing academic programs of high quality and value to their constituencies. A major feature of RCM is the flexibility it allows deans to shift funds from one spending category to another, depending on need, with accountability only for the total.

According to Curry (1996), the major downside to RCM is that, if left to operate without constraints, academic programs can become driven entirely by financial entrepreneurship. Curry maintained that an ill-thought through RCM system can balkanize academic units by promoting competition for students and resources, making it difficult for them to work toward a common vision or set of academic goals.

Responsibility Center Management systems, according to Curry (1996) are examples of an incentive approach to planning and resource allocation. These types of budgeting and resource allocation systems are not unique. Several large private institutions, including Harvard, Johns Hopkins, the University of Miami, the University of Pennsylvania, the University of Southern California, Indiana University-Bloomington, and Washington University use variations of RCM systems. Many institutions are moving to increase fiscal autonomy within their universities, creating considerable interest in RCM systems.

This research study examined the implementation of RCM systems at two institutions of higher education: the Graduate School of Business at Institution A and the Center of Collaborative Education and Professional Studies at Institution B. Due to the unique purpose and distinctiveness of each institution and the characteristics of RCM systems, the form and likely success of the implementation are yet to be determined. In

adopting this innovative and decentralized approach, the central administration at institutions of higher education hope to establish a system where academic priorities in each university lead rather than follow the budget process (Massy, 1990). According to Whalen (1991), the RCM system is designed to result in different expectations and behavior among faculty, unit budget administrators, and campus administrators. It is intended to produce an environment that fosters realization of the institution's aspirations for academic distinction in teaching and scholarship.

By definition, responsibility center management is a decentralized budgeting system where all expenditures, such as staff salaries, services, and a share of physical plant costs, must be covered by the unit in question through income generated by tuition and fees, endowments, gifts, and grants (Meisinger & Dubeck, 1984). An important characteristic of these systems is that units are permitted to retain income in excess of costs assignable to the unit.

The experience at the University of Pennsylvania, as amplified by Slaughter and Leslie (1997), demonstrated that three management principles guide the application and effectiveness of decentralized management in higher education: openness, localness, and merit. Over the years, the University of Pennsylvania, the University of Southern California, and other institutions of higher education have realized benefits of this system by measuring budget performance on the basis of revenues and expenses, indirect as well as direct, at the school and department level.

Statement of the Problem

Heath (1993) determined that centralized budgeting systems result in the establishment of unintended incentives that are contrary to the organization's overall

interest. Examples of these unintended incentives may be the wasteful expenditure of resources before year-end closing, ineffective teaching by faculty capable of instructional excellence, and numerous publications from generally insignificant research.

Whalen (1991) and Curry (1996) asserted that the rapid changes colleges and universities are undergoing require the institutions to grow and find additional resources. RCM is one alternative to centralized budgeting and it is one promising tool to help higher education institutions successfully keep pace with or stay ahead of change and thrive. Dubeck (1997) argued that while RCM systems may have significant limitations, such as the emphasis placed on financial considerations in academic decision making and increased competition between units, more empirical research is needed to demonstrate its considerable potential for use with institutions of higher education.

Despite the fact that the University of Pennsylvania, Harvard University, and University of Southern California have all used RCM for nearly two decades, interest level in this decentralized budgeting system has remained relatively low until recently. As previously stated, campus administrators and faculty representatives are currently in the process of implementing RCM systems in the Graduate School of Business at Institution A, and in the Center of Collaborative Education and Professional Studies at Institution B. Due to the unique purpose and distinctiveness of each institution and the characteristics of RCM systems, the form and likely success of the implementation process are yet to be determined. Currently there is little theoretical understanding or practical experience available to guide administrators and faculty implementing RCM systems at institutions of higher education. There is a paucity of research specifically related to the impact, success, and/or failure of RCM systems as an alternative to

centralized budgeting. Furthermore, more empirical evidence is necessary to understand how RCM systems work.

Purpose of the Study

This research focused on RCM systems at Institution A and Institution B. The purposes of this study were to (a) examine and describe the purpose and characteristics of RCM systems at each institution, (b) describe the RCM system used at each institution at the school level of the organization, (c) examine and analyze the implementation of responsibility center management at each institution, (d) identify the advantages and disadvantages of RCM systems at each institution, (e) examine and describe the impact of the RCM system on various constituencies affected by implementation of the process at each institution, and (f) provide data which may assist institutions of higher education in determining whether or not to institute a RCM model to assist administrators in the budgeting process.

Significance of the Study

Responsibility Center Management is a management and budgeting process for universities that decentralizes authority and responsibility to academic and support centers. Motives include integrating planning, decentralizing decision making, matching costs with benefits at unit levels, increasing awareness of costs and incentives for income generation, making tradeoffs between fiscal choices more explicit, and enriching amounts of shared fiscal information.

To date, the RCM approach to institutional planning and budgeting has generally been limited to state appropriation processes, campus auxiliary and service enterprises, restricted fund units, and the general funds of prestigious private colleges. It has also

been used in limited ways at a few public universities. As a result, very little is known about the efforts these systems have on the quality of academic programs and behavior of academic personnel in both private and public universities (Meisinger & Dubeck, 1984).

This study provides information to institutions of higher education that are interested in implementing a RCM system at the school level of the organization. It provides insight into how RCM impacts the decision-making process regarding budgeting and governance of the university.

This study contributes to the understanding of the RCM implementation process because little is known about the efficacy of decentralized budgeting systems. It is also anticipated that the results of this study can be used by those empowered to make budgetary decisions.

This study contributes to the literature by providing a look at both private and public institutions of higher education that are in the process of applying RCM principles of decentralized budgeting at the school level, and determining the success as an alternative to a centralized budgeting system.

Although the general scope of this study limits its generalizability to two institutions of higher education, it has the potential to elicit questions for future research that may be more extensive and focused.

Research Questions

This research focused on RCM systems at Institution A and Institution B and it addressed the following research questions.

1. What is the purpose of RCM systems at each institution?
2. What are the distinguishing characteristics of RCM systems at each institution?

3. What are the perceived advantages of RCM systems at each institution?
4. What are the perceived disadvantages of RCM systems at each institution?
5. What are the structure, the process, and degree of decentralization regarding budgetary decision making under the RCM system at each institution?
6. What are the rules, incentives, organizational procedures, and informational aspects of the RCM system at each institution?
7. Who is involved and what role does each individual play in the annual budgeting and resource allocation process?
8. What impact does the RCM system at each institution have on the school-level organization, the campus administration, and the faculty?
9. What impact does the RCM system at each institution have on academic programs and responsibility centers?
10. What impact does the RCM system have overall at each institution?

Procedures

This study attempted to provide insight into how RCM impacts the decision-making process regarding budgeting and governance of the university and at the school level of the organization.

This study contributed to the understanding of the RCM implementation process because little was known about the efficacy of decentralized budgeting systems. It is also anticipated that the results of this study can be used by those empowered to make budgetary decisions at institutions of higher education.

In this study, interviews were utilized to investigate the school-level implementation of a responsibility center management system at the Graduate School of

Business at Institution A, and the Center of Collaborative Education and Professional Studies at Institution B. Continuous adjustment or focusing of the study implies that as data was collected and analyzed and as a result, some issues became more relevant to the researcher and therefore to the purpose of the study. As issues were raised in the interviews that were not clear to the researcher, meetings with the respondents for purposes of clarity were scheduled and held.

A total of 12 interviews were conducted. Respondents included one provost and one CFO from each institution as well as one dean from each school, and six faculty (three from each school) who had direct knowledge of, and/or responsibility for the school-level implementation of RCM systems. These individuals provided information regarding their perceptions of their respective RCM systems and related activities associated with the implementation process at each institution.

With the permission of each respondent, each interview was tape recorded to provide an unimpeachable data source, assure completeness, and provide the opportunity to review as often as necessary to assure full understanding (Lincoln & Guba, 1985). In-depth interviews were most appropriate given the researcher was attempting to discover, rather than verify information. The in-depth interviews included open-ended questions, permitting a free response from the respondent rather than one limited by stated alternatives or implied boundaries.

An interview protocol was developed based on the results of the pilot study and review of the literature. The pilot study respondents included a provost, a CFO, two deans, and four faculty members. Respondents were asked to propose personal insights into certain occurrences and articulate perceptions that might be used as the basis for

further inquiry (Yin, 1984). The tape recorded interviews were transcribed verbatim for the purpose of analysis and to confirm the accuracy of the content. Overall, interviews are an essential source of case study evidence because most case studies are about human affairs.

In this study, the researcher conducted in-depth interviews with the respondents at Institution A and Institution B. Prior to these interviews, the researcher called each respondent namely, the two provosts, the two CFOs, the two deans, and the six faculty members at the institutions above to obtain their approval to participate in the study. Subsequently, an informed consent letter which included the interview questions was mailed to each respondent for signature confirmation.

The study progressed through five stages: (a) the orientation and overview phase where the researcher attempted to obtain sufficient data from the interviews; (b) the focus exploration phase where the researcher used data collected and analyzed in the first phase to obtain information in-depth about those elements determined to be salient; (c) the narrative phase, where the researcher described the respondents' perceptions of the RCM system on various constituencies affected by implementation of the process; (d) the member check phase, where the researcher shared a summary of the content analysis with key respondents to obtain confirmation and establish credibility; and (e) the case study phase, where the researcher analyzed the responses of the faculty to the responses of the administration at each institution, and ultimately evaluated the RCM system at each institution. A total of two case studies were written.

During the narrative and member check phases, the researcher developed 12 individual content analyses; two provost content analyses, two CFO content analyses,

two dean content analyses, and six faculty content analyses. From the content analysis phase, the researcher developed two case studies: the case study between the faculty and administration at each institution.

Using the constant comparative method (Glaser & Strauss, 1967) data was collected and continuously analyzed by the researcher. Interviews were subjected to content analysis; a technique used to make inferences by objectively and systematically identifying specific characteristics of the messages (Creswell, 1998). Propositions ("how" and "why" questions) were fleshed out and then developed from the resulting categories and used by the researcher to write the conclusions of the study.

Implications of the Study

The overall reaction from the respondents to RCM systems implementation was mixed. All the administrators at each institution were strongly in favor of RCM. They regarded it as a method of continuing strong, central guidelines, yet decentralizing operations, integrating academic and financial planning, providing incentives for income generation, increasing understanding and awareness of costs, and enabling deans to better manage income and expenditures in their schools and centers.

In this study none of the six administrators would choose to return to the former budgeting approach, and three faculty said that they would not want to be an administrator without it. Most of the respondents felt this process for decentralizing management and resources was a positive move and that it provided for better decisions in a more timely fashion. Particularly, the deans mentioned the attribution to the schools of all fees and earned income generated and the retention of the cash balance at the end of

the fiscal year as being great aids for effective budgetary planning and fiscal management.

All the faculty respondents lauded the decentralization and rationality of RCM, although five out of the six faculty voiced concerns about the deans' accountability and their individual management styles that would cause problems under any budgeting system. Some faculty were concerned about possible preoccupation with cost cutting and increased isolation of academic centers. In this regard, one campus administrator felt that a "sense of common enterprise" needed to be developed.

There was a lack of consensus among the respondents as to whether or not RCM had hurt collegiality among administrators and faculty. However, this study suggested it might be too soon to make a judgment on this. A majority of respondents indicated that the university administration should have more resources for reallocation to enhance the leadership in setting campus-wide priorities and in meeting overall academic goals.

This study indicated that there was widespread consensus on both campuses that RCM was more flexible and more rational than traditional fiscal management systems. There was also agreement among the six faculty and two deans that some adjustments would be in order because ultimately, RCM systems enabled the "rich to get richer" given some centers were inherently more cost-effective.

In addition to retaining RCM, the respondents concurred that there was support for extending budget planning beyond the traditional 12 months to a multi-year process. This concept was in accord with responsibility centers carrying forward year-end surpluses and/or deficits and full use by responsibility centers of fees and earned income.

The study suggested a multi-year planning approach would enhance stability and institutional coherence as centers saved for future goals or borrowed against future revenues. It also would facilitate academic planning and increase accountability campus-wide.

Strong sentiments were echoed by the two senior faculty for fine-tuning the adjudication of "turf" differences between academic centers that offered apparently competitive courses. The implication was that along with issues of territoriality, an adjudication process with systematic checks and balances could be used to adjust RCM procedures as issues arose.

The two senior faculty and six administrators felt that RCM increased information flow, including data on what was being subsidized and by which centers. The study also suggested that RCM expanded the number of participants in the decision-making process, informing more administrators and faculty and inducing greater internal understanding of RCM as those involved were affected and served. This knowledge could be helpful in small, diverse universities like Institution A and Institution B, as administrators, deans and faculty who were familiar with the RCM process shared information with colleagues.

A central concern expressed by four out of the six faculty was that academic quality might be hurt because of financially motivated decisions. Most notably, there was a consensus among all faculty respondents that they could not act in fiscally responsible ways when they could not tell what the formulae were for administrative overhead charges.

Two senior faculty respondents expressed concern that RCM created entrepreneurial incentives that might hurt academic quality. They pointed out the

tendency to expand the student-faculty ratio and also reported placing the best faculty in lower level courses in an attempt to "grow majors."

The recurring theme of "control" emerged when the two deans expressed their concerns about having to seek approval to spend year-end surpluses, along with increases within responsibility centers of responsibility and accountability, but not as much increase in control. They also mentioned related issues associated with the central administration's implementation of campus-wide initiatives without (in their opinion) sufficient support of deans and faculty.

Three out of the six faculty respondents expressed some concern that RCM prompted administrators to focus more on budgetary items rather than paying full attention to academic issues. In addition, some respondents cautioned that RCM could tend to divide the university, particularly as related to the competition for resources.

Interestingly, five out of the six administrators described how the RCM implementation process enabled them to transform their institutions essentially, to turn them into something new. The magnitude of the task called for the development of a new, shared vision of what the institution wished to become. According to Senge (1992), successfully developing and cultivating that vision inevitably involved creating, a new, transcendent culture. This study suggested that academic leaders must engage widespread participation in and commitment to the new vision; doing so required them to work through the existing culture. This study's implication was that defining and cultivating a shared vision and mission had therefore become integral parts of the RCM systems process.

This study indicated that people and institutional cultures might not resist change itself so much as they resisted being changed. According to Berquist (1992), a change process whereby someone dictates the change is less effective than one in which change occurs as a byproduct of efforts to achieve a desired outcome. Everyone knows the axiom that the carrot is better than the stick. The findings of this study indicated that administrators, whose campus culture often supported a rational approach to problems, must resist a natural tendency to operate directly on people and culture. They should take a more complex, although still rational, approach within the broader context of the inherent campus environment.

Ten out of the twelve respondents in this study indicated that in order to meet the needs of a fast-paced, changing environment required a campus culture that supported shared vision, a willingness to understand the organization and its environment, and trust. According to Chaffee and Sherr (1992), the budgeting process could enhance these three elements without requiring a unitary culture. This study suggested that serious attempts should be made to incorporate throughout the decentralized budgeting process various methods of fostering shared cultural value on continuous improvement, in meeting the needs of the stakeholders that each university serves.

According to Berquist (1992), if administrators and faculty help to establish an institutional culture with a shared vision, a willingness to understand the organization and its environment, and trust, they gain access to the efforts and enthusiasm of all participants in transforming the institution.

Not surprisingly, among all respondents, issues of leadership and shared governance emerged in implementing RCM systems given the boundaries set by the

culture at each institution. Furthermore, leadership was key to the campus culture and leadership was an organizational and reciprocal process. Senge (1992) defined leadership in context that is, we cannot have leaders without followers. This study suggested leadership was not simply the end result, but the processes used, and the routes taken, so that administrators and faculty could achieve the overall institutional goals.

All the respondents described how the collegial campus participants, who had done the work of the organization in the past would change with the implementation of RCM at the school level, and if success was to be achieved the transformation was not temporary or stopgap; it was fundamental. According to Schon (1987), in a world in which all acts, structures, and events are construed as symbolic; it is essential to take into account the symbolic life of concrete phenomena. The majority of respondents expressed a belief that an academic leader in a RCM environment should be able to develop the sense that changing budget processes did not destroy core beliefs. Structures change; core ideologies undergo contextual interpretation but remain in place unless found to be false.

The majority of faculty respondents described how achieving the proper balance between the RCM parts and the whole required thorough, candid, and ongoing campus discussion between dean and faculty about the financial condition of the school and its departments within the context of each center's organizational, operational and cultural framework. An implication was that, while department chairs or faculty committees should be consulted, their views could not be used to decide how final budget allocations were made to departments, because they are (and must be) advocates that is, special interest groups for their individual departments.

The respondents in this study did not propose RCM systems as a panacea that could substitute for strong, effective administrative management and leadership or the need for judicious decision making by administrators. Rather, this study suggested that RCM, like any other decentralized budgeting process, neither created nor destroyed dollars; its effectiveness as a planning tool depended upon the skills of the people using it. Most important, campus administrators and faculty must collaborate to establish a congruence of vision, mission and academic priorities across the university, so that the individual academic centers and support units were forged into a coherent whole.

Furthermore, the researcher found the implication in any decentralized budgeting system was that university and campus leadership should retain sufficient academic and fiscal leverage to facilitate achievement of institutional goals, maintain an institutional balance among programs, and respond to constituencies' initiatives.

Implications of this study included a need to reinvent consensus decision making so that its inherent limitations, the tendency to suppress dissent and to level all contradictions, could be minimized. The respondents made a compelling argument that the kind of leadership that could effect truly collaborative decision making about RCM, involving administrators, deans and faculty, required skills in which few academic professionals had yet been trained. If administrators and faculty were to participate in good faith, they must be assured of positive rewards because, essentially, they were being asked to implement a set of coordinated activities across campus that might well redefine or even wholly eliminate their areas of traditional responsibility.

The researcher found that individuals could be expected to participate honestly in such a process only if they had confidence, from the outset, that their recommendations

were to receive serious consideration. Even more important, they must be reassured that the entire process was not simply a ruse for getting them to collaborate in eliminating their own employment.

Consistent with Massy (1990) and what was paramount in RCM implementation on both campuses was some concrete and demonstrable expression of appreciation to let a person or group know that their decentralization efforts through the university's budget process had been noted. The will to make the needed systemic changes at each institution, in a campus environment with a distinctive culture, was dependent on the participants' sense of reward, empowerment, and security.

This study suggested the new economic realities that confront higher education today. The requirement for a serious rethinking of the way that work is done, the way it is organized, and the financial systems needed to support the academic enterprise as distinguished by its visionary leadership and collegial culture.

REFERENCES

Albright, B. and Gilleland, D. (1994). A clean slate. Principles for moving to a value-driven higher education model. Focus on the budget: Rethinking current practice. Denver: Education Commission of the United States.

Berquist, W. (1992). The four cultures of the academy. San Francisco: Jossey-Bass.

Chaffee, E.E. and Sherr, L.A. (1992). Quality transforming postsecondary education. New York: Macmillan.

Creswell, J.W. (1998). Qualitative Inquiry and Research Design: Choosing Among Five Traditions. Thousand Oaks, CA: Sage Publications.

Curry, J.R. (1996). Responsibility Center Management- The Case of Composite University. Association of Governing Boards, Priorities; March.

Dubeck, L.W. (1997). Beware Higher Ed's Newest Budget Twist. Thought & Action; v13 n1 p81-91 Spring.

Glaser, B. and Strauss, A. (1967). The discovery of grounded theory. Chicago: Aldine.

Heath, R. (1993). Responsibility Center Budgeting: A review and Commentary on the Concept and the Process. JACA; n1 p1-10 Jan.

Kaplan, R. (1997). Cost & Effect: Using Integrated Cost Systems to Drive Profitability and Performance. Harvard Business School Press.

Lincoln, Y. and Guba, E. (1985). Naturalistic inquiry. Beverly Hills, CA: Sage Publications.

- Massy, W.F. (1990). Budget Decentralization at Stanford University. Planning for Higher Education; v18 n2 p39-55 1989-1990.
- Massy, W.F. (1991). Improving productivity in higher education. Palo Alto, CA: Stanford University Institute for Higher Education Research.
- Meisinger, R. and Dubeck, L. (1984). College and university budgeting. Washington, D.C: National Association of College and University Business Officers.
- Schon, D. A. (1987). Educating the reflective practitioner. San Francisco: Jossey-Bass.
- Senge, P.M. (1992). The fifth discipline: The art and practice of the learning organization. New York: Doubleday.
- Slaughter, S. and Leslie, L.L. (1997). Academic capitalism: politics, policies, and the entrepreneurial university. Baltimore: Johns Hopkins University Press.
- Stocum, D.L. and Rooney, P.M. (1997). Responding to Resource Constraints: A Departmentally Based System of Responsibility Center Management. Change; v29 n5 p50-57 Sept.-Oct.
- Whalen, E. (1991). Responsibility Center Budgeting: An Approach to Decentralized Management for Institutions of Higher Education. Bloomington, IN: Indiana University Press.
- Yin, R. (1984). Case study research: Design and Methods (1st ed.). Beverly Hills, CA: Sage Publications